" talon"; and this ledge became produced into two additional cusps, the hypoconule or hypoconulid, and the ectoeone or ectoconid. Thus the typical sextuberculate tooth of the primitive Ungulate, anrl indeed of many primitive Eutherians, is arrived at.

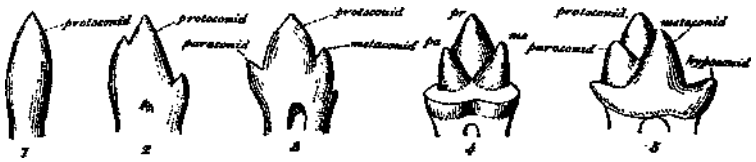

FIG. 39-—Epitome of the evolution of a cusped tooth. 1, Reptile ; 2, *DromatJierium* *3, Microconodon* / 4, *Spalacotherium: me,* raetacotiid ; jtw, paraconicl; *pr,* protocoiiid ; 5, *ATngohithzrium.* (After Osborn.)

ITrom this the still further complicated teeth of modern Ungulates can be derived by further additions or fusions, etc.[1] On the other hand, the development of the Primate molar stops short at the stage of four cusps.

That such a series can be traced is an undoubted fact. Every stage exists, or has existed. But whether the stages can be connected or not is quite another question. It is by three main lines of argument that the view here sketched out in brief is supported. In the first place, the tracing of the pedigrees of many groups of mammals has met with very considerable success; and it is clear that as we pass from the living Horse and Hhinoceros, with their complicated molars, to their forerunners, we find that both can be referred to a primitive Ungulate molar with but six cusps. Going still further back to the lowest Eocene and ancestral type as it appears, *JEuprotogonia,* we still find in the molar tooth the sextubercular plan of structure. We can. hardly get further back in the evolution of the Perissodactyles with any probability of security. On the other hand, many facts point to a fundamental relationship between the primitive Ungulates and the early Creodonts. The latter frequently show plainly trifcubercular molars. Such Ungulates as *JSujprotogonia* and *Protogonodon,* though sex- or quinque-tubercular as to their molars, have a distinctly prevailing trituberculiani, when the *si%e* and importance of three of the cusps is taken into account. But this

* ***e.g.*** **the "protolopli/' " metaloph," etc. (see Fig. S6, p.**

51), of tl*e modern form of tooth.